



FLAT ROOFING

Safety data sheet

FIX-R FIX-Rcryl | 001

ROOF REPAIR SYSTEM FIX-Rcryl

SECTION 1

Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: FIX-R FIX-Rcryl

Product type: Liquid

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified use: Resins

1.3. Details of the supplier of the safety data sheet

FIX-R, Harding Way, St Ives, Cambridgeshire PE27 3YJ

Tel: 01480 466 777 Fax: 01480 290 133 Email: info@fix-r.co.uk www.fix-r.co.uk

1.4. Emergency telephone numbers:

NHS Tel: 111

SECTION 2

Hazards Identification

2.1. Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] : Flam. Liq. 3, H226

STOT SE 3, H336

STOT RE 1, H372

Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Physical/chemical hazards : Flammable.

Human health hazards : Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

Environmental hazards : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2. Label elements

Hazard pictograms	:	   
Signal word	:	Danger
Hazard statements	:	H226 - Flammable liquid and vapour. H336 - May cause drowsiness or dizziness. H372 - Causes damage to organs through prolonged or repeated exposure. H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention	:	P280 - Wear protective gloves. Wear eye or face protection. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. P273 - Avoid release to the environment. P260 - Do not breathe vapour.
Response	:	P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
Storage	:	P235 - Keep cool.
Disposal	:	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazardous ingredients	:	HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)
Supplemental label elements	:	Contains 2-ethylhexyl acrylate. May produce an allergic reaction.

Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles:

Not applicable.

2.3. Other hazards

Other hazards which do not result in classification:

Prolonged or repeated contact may dry skin and cause irritation.

SECTION 3

Composition/Information on Ingredients

Substance/mixture: Mixture

Product/Ingredient Name	Identifiers	%	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)	REACH #: 01-2119458049-33 EC: 919-446-0	≥25 - ≤50	Flam. Liq. 3, H226 STOT SE 3, H336 STOT RE 1, H372 (inhalation) Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	[1]
Limestone	EC: 215-279-6 CAS: 1317-65-3	≥25 - ≤50	Not classified.	[2]
Titanium dioxide	REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7	≤10	Not classified.	[2]

Styrene	REACH #: 01-2119457861-32 EC: 202-851-5 CAS: 100-42-5 Index: 601-026-00-0	≤0.3	Flam. Liq. 3, H226 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Repr. 2, H361d (Unborn child) STOT SE 3, H335 STOT RE 1, H372 (hearing organs)	[1] [2]
2-ethylhexyl acrylate	EC: 203-080-7 CAS: 103-11-7 Index: 607-107-00-7	≤0.3	Asp. Tox. 1, H304 Aquatic Chronic 3, H412 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 4, H413 See Section 16 for the full text of the H statements declared above.	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4

First Aid Measures

4.1. Description of first aid measures

- Eye Contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison centre or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin Contact : Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention following exposure or if feeling unwell. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison centre or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2. Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	:	No known significant effects or critical hazards.
Inhalation	:	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	:	Defatting to the skin. May cause skin dryness and irritation.
Ingestion	:	Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact	:	No specific data.
Inhalation	:	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	:	Adverse symptoms may include the following: irritation dryness cracking
Ingestion	:	No specific data.

4.3. Indications of any immediate medical attention and special treatment needed

Note to physician	:	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	:	No specific treatment.

SECTION 5

Fire-fighting Measures

5.1. Extinguishing media

Suitable extinguishing media	:	Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	:	Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Hazards from the substance or mixture:

Flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products:

Decomposition products may include the following materials:

carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides

5.3. Advice for firefighters

Special protective actions for fire-fighters:

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6

Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2. Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3. Methods and material for containment and cleaning up

Small spill:

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill:

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4. Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

SECTION 7

Handling and Storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures:

Put on appropriate personal protective equipment (see Section 8). Do not breathe vapour or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2. Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep Container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

Seveso Directive - reporting thresholds (in tonnes)

Danger Criteria

Category	Notification and MAPP threshold	Safety report threshold
P5c: Flammable liquids 2 and 3 not falling under P5a or P5b	5000	50000
E2: Hazardous to the aquatic environment - Chronic 2	200	500

7.3. Specific end use(s)

Recommendations : Not applicable

Industrial sector specific solutions : Not applicable

SECTION 8

Exposure Controls/Personal Protection

The list of identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1. Control parameters

Occupational exposure limits

Product/Ingredient name	Exposure limit values
Limestone	EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m ³ 8 hours. Form: inhalable dust TWA: 4 mg/m ³ 8 hours. Form: respirable dust
Titanium dioxide	EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m ³ 8 hours. Form: inhalable dust TWA: 4 mg/m ³ 8 hours. Form: respirable dust
Styrene	EH40/2005 WELs (United Kingdom (UK), 12/2011). STEL: 250 ppm 15 minutes. TWA: 100 ppm 8 hours. TWA: 430 mg/m ³ 8 hours. STEL: 1080 mg/m ³ 15 minutes

Recommended monitoring procedures:

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/Ingredient name	Type	Exposure	Value	Population	Effects
HYDROCARBONS C9-12 N- ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)	DNEL	Long term Dermal	44 mg/Kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	330 mg/m ³	Workers	Systemic
	DNEL	Long term Oral, Dermal	26 mg/Kg bw/day		Systemic
	DNEL	Long term Inhalation	71 mg/m ³		Systemic
	DNEL	Short term Inhalation	570 mg/m ³		Systemic
	DNEL	Short term Inhalation	570 mg/m ³		Systemic

Styrene	DNEL	Short term Inhalation	289 mg/m ³		Systemic
	DNEL	Short term Inhalation	306 mg/m ³		Local
	DNEL	Long term Dermal	406 mg/Kg bw/day		Systemic
	DNEL	Long term Inhalation	85 mg/m ³		Systemic
	DNEL	Short term Inhalation	174.25 mg/ m ³		Systemic
	DNEL	Short term Inhalation	182.75 mg/ m ³		Local
	DNEL	Long term Dermal	343 mg/Kg bw/day		Systemic
	DNEL	Long term Inhalation	10.2 mg/m ³		Systemic
	DNEL	Long term Oral	2.1 mg/Kg bw/day		Systemic

PNECs

Product/Ingredient name	Compartment details	Value	Method detail
Styrene	Fresh water	0.028 mg/l	-
	Marine water	0.0028 mg/l	-
	Fresh water	0.614 mg/Kg dwt	-
	Marine water sediment Soil	0.0614 mg/Kg	-
	Sewage Treatment Plant	0.2 mg/Kg dwt	-
		5 mg/l	-

8.2. Exposure controls

Appropriate engineering controls:

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measure:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure eyewash stations and safety showers are close to the workstation location.

Eye/face protection:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates that this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection:

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

Other skin protection:

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection:

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9**Physical and Chemical Properties****9.1. Information on basic physical and chemical properties**

Appearance	
Physical state	Liquid
Colour	Grey, black or white
Odour	Solvent
Odour threshold	Not available
pH	Not available
Melting point/freezing point	Not available
Initial boiling point and boiling range	Not available
Flash point	39°C (Closed cup)
Evaporation rate:	Not available
Flammability (solid, gas)	Not available
Burning time	Not available
Upper/lower flammability or explosive limits	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative Density	1.1 to 1.2
Solubility in water	Not available
Partition coefficient n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Kinematic (40°C):>0.4 cm ² /s
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

Heat of combustion : Not available
Enclosed space ignition -
Time equivalent : Not available

SECTION 10**Stability and Reactivity****10.1. Reactivity**

No specific test data related to reactivity available for this product or its ingredients.

10.2. Chemical stability

The product is stable.

10.3. Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4. Conditions to avoid

Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5. Incompatible materials

Reactive or incompatible with the following materials: oxidizing materials.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11

Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)	LD50 Dermal	Rabbit	3400 mg/Kg	-
Styrene	LD50 Oral LC50 Inhalation Gas LC50 Inhalation Vapour LC50 Dermal LD50 Oral	Rat Rat Rat Rat Rat	>15000 mg/Kg 2770 ppm 11800 mg/m ³ >2000 mg/Kg 2650 mg/Kg	- 4 hours 4 hours - -
2-ethylhexyl acrylate	LD50 Oral	Rat	6700 mg/Kg	-

Conclusion/Summary : Not available

Acute toxicity estimates : Not available

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Styrene	Eyes - Mild irritant Eyes - Moderate irritant Eyes - Severe irritant Skin - Mild irritant	Human Rabbit Rabbit Rabbit	- - - -	50 parts per million 24 hours 100 milligrams 100 milligrams 500 milligrams	- - - -
2-ethylhexyl acrylate	Eyes - Mild irritant Eyes - Severe irritant Skin - Mild irritant Skin - Moderate irritant Skin - Severe irritant	Rabbit Rabbit Rabbit Rabbit Rabbit	- - - - -	24 hours 500 milligrams 5 milligrams 500 milligrams 24 hours 20 milligrams 24 hours 10 milligrams	- - - - -

Conclusion/Summary : Not available

Sensitisation Conclusion/Summary : Not available

Mutagenicity Conclusion/Summary : Not available

Carcinogenicity Conclusion/Summary : Not available

Reproductive toxicity

Conclusion/Summary : Not available

Teraotogenicity Conclusion/Summary : Not available

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)	Category 3	Not applicable	Narcotic effects
Styrene	Category 3	Not applicable	Respiratory tract irritation
2-ethylhexyl acrylate	Category 3	Not applicable	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)	Category 1	Inhalation	Not determined
Styrene	Category 1	Not determined	Hearing organs

Aspiration Hazard

Product/ingredient name	Result
HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)	Aspiration Hazard - Category 1
Styrene	Aspiration Hazard - Category 1

Information on likely routes of exposure : Not available

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
 Inhalation : Can cause central nervous system (CNS) depression.
 May cause drowsiness or dizziness.
 Skin contact : Defatting to the skin. May cause skin dryness and irritation.
 Ingestion : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
 Inhalation : Adverse symptoms may include the following: nausea or vomiting
 headache
 drowsiness/fatigue
 dizziness/vertigo
 unconsciousness
 Skin contact : Adverse symptoms may include the following:
 irritation
 dryness
 cracking
 Ingestion : No specific data

Delayed and immediate effects as well as chronic effects from short and long-term exposure.**Short term exposure**

Potential immediate effects : Not available.
 Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
 Potential delayed effects : Not available.

Potential chronic health effects:

Product/ingredient name	Result	Species	Dose	Exposure
HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)	Chronic NOAEL Oral	Rat - Male	300 mg/Kg	2 years
Styrene	Chronic LOAEL Oral Chronic NOAEL Oral Chronic NOAEL Dermal Chronic NOAEL Inhalation Gas	Rat - Male Rat - Male Rat Rat	116 mg/Kg ≥495 mg/Kg 615 mg/Kg 20 ppm	30 days 90 days - 8 hours

Conclusion/summary : Not available.
 General : Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
 Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Teratogenicity : No known significant effects or critical hazards.
 Developmental effects : No known significant effects or critical hazards.
 Fertility effects : No known significant effects or critical hazards.
 Other information : Not available.

SECTION 12

Ecological Information

12.1. Toxicity

Product/ingredient name	Result	Species	Exposure
HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)	Acute EC50 10 to 22 mg/l	Daphnia	48 hours
Styrene	Acute IC50 4.6 to 10 mg/l Acute LC50 10 to 30 mg/l Chronic NOEC 0.28 mg/l Acute EC50 1400 Qg/l Fresh water Acute EC50 33 mg/l Fresh water Acute EC50 4700 Qg/l Fresh water Acute LC50 52000 Qg/l Marine water Acute LC50 4020 Qg/l Fresh water Chronic NOEC 1.01 mg/l	Algae Fish Daphnia Algae - Pseudokirchneriella subcapitata Algae - Pseudokirchneriella Subcapitata Daphnia - Daphnia magna Crustaceans - Artemia salins - Nauplii Fish - Pimephales promelas Daphnia	72 hours 96 hours 21 days 72 hours 96 hours 48 hours 48 hours 96 hours 21 days

Conclusion/summary : Not available

12.2. Persistence and degradability

Conclusion/summary : Not available

Product/ingredient name	Aquatic half- life	Photolysis	Biodegradability
HYDROCARBONS C9-12 N-ALKANES, ISOALKANES CYCLIC AROMATICS (2-25%)	-	-	Readily
Styrene	-	-	Readily

12.3. Bioaccumulative potential

Product/ingredient name	Aquatic half- life	Photolysis	Biodegradability
Styrene	0.35	13.49	Low
2-ethylhexyl acrylate	4.64	-	High

12.4. Mobility in soil

Soil/water partition coefficient (Koc) : Not available

Mobility : Not available

12.5. Results of PBT and vPvB assessment

PBT : Not applicable

vPvB : Not applicable

12.6. Other adverse effects

No known significant effects or critical hazards.

SECTION 13

Disposal Considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1. Waste treatment methods

Product

Methods of disposal:

The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste:

The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal:

The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14

Transport Information

		ADR/RID	IMDG	IATA
14.1.	UN number	UN1866	UN1866	UN1866
14.2.	UN proper shipping name	RESIN SOLUTION	RESIN SOLUTION	RESIN SOLUTION
14.3.	Transport hazard class(es)	3 	3 	3
14.4.	Packing group	III	III	III
14.5.	Environmental hazards	Yes	Yes	No
	Additional information	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 Kg. Hazard identification number 30 Limited quantity 5 L Special provisions 640E Tunnel code (D/E)	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 Kg. Emergency schedules (EmS) F-E, _S-E_ Special provisions 223, 955	The environmentally hazardous substance mark may appear if required by other transportation regulations. Passenger and Cargo Aircraft Quantity limitation: 60 L Packaging instructions: 355 Cargo Aircraft Only Quantity limitation: 220 L Packaging instructions: 366 Limited Quantities - Passenger Aircraft Quantity limitation: 10 L Packaging instructions: Y344 Special provisions A3

14.6. Special precautions for user

Transport within user's premises : always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not available.

SECTION 15

Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
EU Regulations (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV : None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Not applicable

Other EU Regulations

Priority List Chemicals : Not determined

(793/93/EEC)

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
Styrene	-	-	Repr. 2, H361d (Unborn child)	-

Seveso Directive

This product is controlled under Seveso Directive.

Danger criteria

Category
P5c: Flammable liquids 2 and 3 not falling under P5a or P5b.
E2: Hazardous to the aquatic environment - Chronic 2

International regulations

Listed on inventory : Not determined

15.2 Chemical safety assessment

This product contains substances for which Chemical safety assessments are still required.

SECTION 16

Other information

Abbreviations and acronyms:

ATE	Acute Toxicity Estimate
CLP	Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EUH statement	CLP-specific Hazard statement
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No Effect Concentration
RRN	REACH Registration Number
vPvB	Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to regulation (EC) No. 1272/200/ [CLP/GHS]

Classification	Justification
Flam. Liq. 3, H226	On basis of test data
STOT SE 3, H336	Calculation method
STOT RE 1, H372	Calculation method
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements:

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child. (Unborn child)
H372	Causes damage to organs through prolonged or repeated exposure. (hearing organs)
H372	Causes damage to organs through prolonged or repeated exposure if inhaled. (inhalation)
H372	Causes damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Full text of classifications [CLP/GHS]:

Acute Tox. 4, H332	ACUTE TOXICITY (inhalation) - Category 4
Aquatic Chronic 2, H411	LONG-TERM AQUATIC HAZARD - Category 2
Aquatic Chronic 3, H412	LONG-TERM AQUATIC HAZARD - Category 3
Aquatic Chronic 4, H413	LONG-TERM AQUATIC HAZARD - Category 4
Asp. Tox. 1, H304	ASPIRATION HAZARD - Category 1
EUH066	Repeated exposure may cause skin dryness or cracking.
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Liq. 3, H226	FLAMMABLE LIQUIDS - Category 3
Repr. 2, H361d (Unborn child)	TOXIC TO REPRODUCTION (Unborn child) - Category 2
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1, H317	SKIN SENSITIZATION - Category 1
STOT RE 1 H372 (hearing organs)	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 1
STOT RE 1, H372 (inhalation)	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (inhalation) - Category 1
STOT RE 1, H372	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
STOT SE 3, H335	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
STOT SE 3, H336	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Date of printing : 08/05/2017
Date of issue/date of revision : 08/05/2017
Date of previous issue : 04/05/2017
Version : 1.09

Notice to reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.